VERITEK Engine Protection Unit



<u>FEATURES</u>

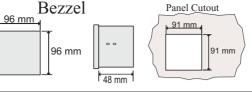
- State of Art Microcontroller Based Design.
- Auto (using external under voltage relay) / Manual Start option
- Programmable Cranking Period / Number of Start attempts & Rest Period
- Low Lube Oil pressure, High water temperature, Over Speed Protections
- Provision for Remote emergency stop
- Battery Under voltage Indication
- Programmable Over speed Limit with delay to avoid nuisance tripping

Parameters Displayed

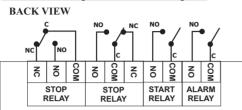
🗸 Battery Vol	tage
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- Frequency
- 🗸 RPM
- ✓ Battery Current using external shunt (optional)
- 🗸 Run Hour
- Any other size on request

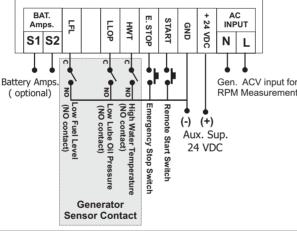
MECHANICAL DIMENTION



Electrical Wiring / Connection Diagram



Product : Engine Protection Unit Model No.: VIPS - EPU801



SPECIFICATIONS

Aux. Supply	: 8.5 VDC to 32 VDC	
Relay Contacts	: Potential Free Contact (NO&NC)	
	a) Alarm Relay	
	b) Stop / Fuel Relay (2C/O	
	c) Cranking Relay	
Contact Rating	: 6 Amps / 230 V AC/ 28 V DC	
Temp	: -20°C to +55°C	
Humidity	: < 95% RH (non condensing)	
Dimension	: 96 x 96 x 60mm (L x B x D)	
Weight	: 300 gms	
8	0	
Potential Free Inputs :		
A) START		
B) EMERGENCY STOP		
C) LOW OIL PRESSURE		
D) HIGH COOLANT TEMP.		
E) LOW FUEL LEVEL		
Analog Inputs :		
A) 30 - 300 VAC 50/60 Hz for Hz measurement		

PROGRAMMING

Programming [In this mode the values can be changed by using STOP as increment key, RST as decrement key & START as shift key to move to next digit]

Press the STOP key continuously till the display shows PAS '0000" to enter program mode. The unit displays PAS '0000' Enter the 4 digit password using Increment / Decrement & shift keys. If password is correct unit enters into program mode & the display shows STA. Factory set password is '0000"

 $\ensuremath{\mathsf{Press}}$ ACK key & program the No of start attempts using Increment/Decrement keys . Press ACK key to store the new value .

Press Stop key to go to next menu STR. Press ACK key & set the start period (the duration for which the start relay comes ON) using Increment/Decrement & shift keys. Press ACK to store the value.

Press the STOP key to go to the next menu STP. Press ACK key & set the stop period (the duration for which the stop relay comes ON) using Increment/Decrement & shift keys .Press ACK to store the value.

Press the STOP key to go to the next menu RTP. Press ACK key & set the rest period between two restart Attempts using Increment / Decrement & shift keys . Press ACK to store the value.

Press the STOP key to go to the next menu OS. Press ACK key & set the over speed limit using Increment/Decrement & shift keys. Press the ACK key to store the value.

Press the STOP key to go to the next menu PAS Press ACK key & enter new password using Increment/Decrement & shift keys ...Press ACK key to store the New Value.

Press the START key to come OUt Of Program mode.

Operation :

- 1.When the start push button is pressed the start relay will energise for the Start Period Set . However if the start period set is larger than the actual starting time of the engine the start relay will de energise once the Frequency crosses 20 Hz.
- 2.After the start period the unit will wait for 2-3 secs and then check for the TI signal or for 33% frequency. Incase any of the signals is available the unit assumes that the Generator has started and starts monitoring the fault inputs except LLOP and Over speed which will be monitored after 5 secs.
- 3.In case if any of the signals is not available the unit will go for restart if more than 1 restart attempt has been programmed . For Restart the unit will wait for the rest period and again energise the start relay .
- 4.After the Generator has started all the faults HWT , LLOP , SPARE , EMERGENCY STOP & OVER SPEED will be continuously monitored .
- 5.For Over speed a time delay of 5 secs is provided so that the Generator is not tripped during engine hunting .
- 6.In case any valid alarm is received the corresponding LED will flash and the Stop Relay will be energized for the Stop Period Programmed (Max. 30 Secs.) thereafter the Buzzer will be sounded . The Buzzer can be silenced using the ACK key however the indication will still remain . After pressing the reset switch the indications will be cleared but HWT, SPARE & Emergency Stop inputs will still be monitored (Over speed and LLOP Cannot be monitored since the Engine is shut down) and the Generator will not start again in case any of these faults is persisting.
- 7.Under Voltage LED will flash when the voltage is either between 16 to 20 volts or below 8 Volts. This is only an indication without any alarm and normal operation will continue.

STOP Push button when pressed will activate the Stop relay for the period set . In case the Stop Push Button is pressed again (after min. 2 secs.) the relay will be turned off irrespective of the stop period .

Additional Features : 1.Engine RPM

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